

NOV 08 2004

PTO/SB/21 (04-04)

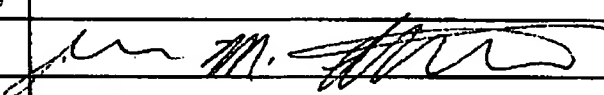
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<h1>TRANSMITTAL FORM</h1> <p>(to be used for all correspondence after initial filing)</p>	Application Number	09/576,720	
	Filing Date	05/23/2000	
	First Named Inventor	BURNS	
	Art Unit	1771	
	Examiner Name	PRATT, CHRISTOPHER	
Total Number of Pages in This Submission	24	Attorney Docket Number	FEL-001P

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
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Date	NOVEMBER 8, 2004

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Case #FEL-001P

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Application of: Burns et al.  
Serial Number: 09/576,720  
Filed: May 23, 2000  
For: Nonwoven Laminate Structure  
Group Art Unit: 1771  
Examiner: Pratt, Christopher C.

**BRIEF ON APPEAL**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Further to the Notice of Appeal filed July 8, 2004, Appellants hereby submit the requisite appeal brief pursuant to 37 CFR § 1.192.

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The invention is directed generally to a nonwoven laminate structure that is built from layers of nonwoven fibrous material 14, 16, 24 bonded together by intermingling the fibers of the individual layers of nonwoven fibrous material with one another such that a portion of the fiber elements in adjacent layers are intermingled with one another as well as with adhesive from layers 18, 20. As noted at page 3, lines 8 and 9, the structure is held together by a combination of mechanical and adhesive bonding. As explained in reference to FIG. 5, at page 10, lines 17-24, at least a portion of the layers forming the laminate undergo an entangling operation at an entangling needle loom 64 such that a portion of the fibers from one or more layers of batting material intermingle with fibers from adjacent layers and with the adhesive material 62. The fibers of the adjacent layers are mechanically joined across the layers of adhesive material with the fibers being intermingled with the adhesive. Upon activation of the adhesive material, dual mechanical and adhesive forces hold the laminate together.

#### ISSUES

Whether claims 25-32 are unpatentable under 35 U.S.C. 103(a) as being obvious over U.S. Patent 6,287,407 to Stein et al. in view of U.S. Patent 3,683,921 to Brooks et. al.?

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MPEP section 2143.01 indicates that even if references can be combined or modified in the manner proposed, a *prima facie* case obviousness is not established unless prior art also suggests the desirability of the proposed modification. *In re Mills*, 916 F.2d 680 16 USPQ2d 1430 (Fed. Cir. 1990). In this regard a prior art reference must be considered in its entirety, including portions that would lead away from the claimed invention. The MPEP further states that if the proposed combination or modification would change the principle of operation of the prior art invention being modified, or would render the prior art invention being modified unsatisfactory for its intended purpose, there is no suggestion or motivation to make the proposed modification.

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In the present case the primary reference to Stein et al. teaches specifically against the mixture of fibers between layers. In this regard, the primary reference advocates using fork or crown needles with a depth such that when piercing through the layered structure they completely fill up with fibers for the base fabric facing the needles (i.e. the top layer). In this way the needles push unmixed pure fibers to the reverse side. This is done with the express purpose of avoiding intermixture of fibers from layers of different colors so as to provide a sharp pattern on the back. While such push-through needling may provide a degree of structure to the needled material, it does not do so by intermingling. To the contrary, if the fibers in the adjacent layers of Stein et al. were intermingled (i.e. blended) with one another across the layer boundary the colors would be mixed thereby reducing the contrast expressly against the teachings of the reference and fundamentally changing the principle of operation.

Appellants also respectfully submit that it would be non-obvious to modify the primary reference to cause intermingling of fiber elements with adhesive. As best understood, a fundamental goal of the invention in the primary reference to Stein et al. is carry out needling in such a manner such that columns of unmixed pure fibers extend across layers to form patterns on an opposite side from needle insertion. To achieve this, crown or fork needles that fill completely with fiber from the first layer are used. Intermingling fiber elements with adhesive in the invention of Stein et al. would cause a portion of the adhesive to be carried to the surface being patterned thereby essentially diluting the purity of the fibrous columns being pushed through the laminate. Of course, such dilution would be contrary to the express teachings of the primary reference.

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In light of the fact that the primary reference appears to teach expressly against the invention as presently claimed, it is respectfully submitted that an appropriate *prima facie* case of obviousness has not been established. In the absence of an appropriate rejection the claims should be allowed.

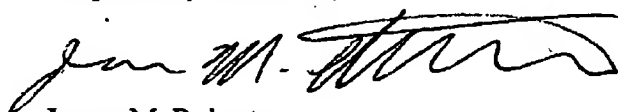
### CONCLUSION

For the reasons set forth above, it is respectfully submitted that the cited art does not support a continued obviousness rejection. Therefore, reversal of all rejections directed to the identified claims is courteously solicited.

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Respectfully submitted,

November 8, 2004



James M. Robertson  
Attorney for Appellant(s)  
Registration Number 36,905  
Telephone: (864) 583-0030

Case #FEL-001P

**APPENDIX****CLAIMS ON APPEAL:**

25. A nonwoven composite structure comprising: a plurality of layers of nonwoven fiber material comprising a plurality of intermingled staple fibers, at least a portion of said layers of nonwoven fiber material being bonded together by a plurality of discrete layers of adhesive extending in substantially sandwiching relation between said layers of nonwoven fiber material, the nonwoven composite being characterized by a thickness of not less than about 8 mm and being further characterized by a density of not less than about 0.1 grams per cubic centimeter said layers of nonwoven fiber material being further bonded together by the forced extension of fiber elements substantially across at least two or more of said layers of adhesive such that a portion of the fiber elements in adjacent layers of the nonwoven fiber material are intermingled with one another and with said adhesive and mechanical entanglement is established between three or more of said layers of nonwoven fiber material.

26. A nonwoven composite structure comprising: a plurality of layers of nonwoven fiber material comprising a plurality of intermingled staple fibers, at least a portion of said layers of nonwoven fiber material being bonded together by one or more discrete layers of adhesive extending in substantially sandwiching relation between said layers of nonwoven fiber material, the nonwoven composite being characterized by a thickness of not less than about 6.3 mm and being further characterized by a density of not less than about 0.1 grams per cubic centimeter said layers of nonwoven fiber material being further bonded together by the forced extension of fiber elements substantially across at least a portion of said layers of adhesive between adjacent layers of said nonwoven fiber material such that a portion of the fiber elements in adjacent layers of the nonwoven fiber material are intermingled with one another and with said adhesive and mechanical entanglement is established between adjacent layers of said nonwoven fiber material.

Case #FEL-001P

27. The invention according to claim 26, wherein said nonwoven composite is characterized by a density in the range of about 0.20 to about 0.55 grams per cubic centimeter.
28. The invention according to claim 26, wherein the staple fibers comprising said nonwoven fiber material are selected from the group consisting of; polyester fibers, acrylic fibers, acetate fibers, wool fibers, aramid fibers, polypropylene fibers, rayon fibers and blends thereof and wherein said staple fibers are characterized by a linear density in the range of about 2 denier to about 15 denier have an average length in the range of about 50 mm to about 105 mm.
29. The invention according to claim 26, wherein said one or more layers of adhesive comprise a dry adhesive.
30. The invention according to claim 29, wherein said dry adhesive comprises a meltable scrim fabric.
31. The invention according to claim 29, wherein said one or more layers of adhesive is activated in a selected geometric pattern such that a discontinuous bonding pattern is formed between adjacent layers of nonwoven fiber material.
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Serial Number: 09/576,720  
Filed: May 23, 2000  
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Group Art Unit: 1771  
Examiner: Pratt, Christopher C.

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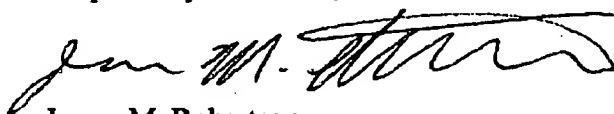
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Case #FEL-001P

27. The invention according to claim 26, wherein said nonwoven composite is characterized by a density in the range of about 0.20 to about 0.55 grams per cubic centimeter.
28. The invention according to claim 26, wherein the staple fibers comprising said nonwoven fiber material are selected from the group consisting of; polyester fibers, acrylic fibers, acetate fibers, wool fibers, aramid fibers, polypropylene fibers, rayon fibers and blends thereof and wherein said staple fibers are characterized by a linear density in the range of about 2 denier to about 15 denier have an average length in the range of about 50 mm to about 105 mm.
29. The invention according to claim 26, wherein said one or more layers of adhesive comprise a dry adhesive.
30. The invention according to claim 29, wherein said dry adhesive comprises a meltable scrim fabric.
31. The invention according to claim 29, wherein said one or more layers of adhesive is activated in a selected geometric pattern such that a discontinuous bonding pattern is formed between adjacent layers of nonwoven fiber material.
32. The invention according to claim 29, wherein said one or more layers of adhesive comprises a scrim fabric of spun bonded construction.

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